

## REMARKS

Applicant respectfully disagrees with the Examiner's Office Action of April 4, 2003 where claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinzmann (#3,962,957) in view of Focke (#4,385,479). Applicant believes that the Examiner's interpretation of Focke is inapplicable to the instant application, that Focke teaches away from the Goldstein application, and that regardless, a man of ordinary skill in the art would not look to nor seek to combine Focke and Hinzmann for the purposes of solving the problems addressed by the instant application. Without a motive to combine, the two cited prior art patents cannot be used to render the claims in the instant application obvious under 25 U.S.C. 103(a).

1. **Both cited patents teach away from the instant application**

There is no suggestion to combine, however, if the reference teaches away from its combination with another source. See *id.* At 1075, 5 USPQ2d at 1599. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant...[or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant)."

Hinzmann has been the focal point for nearly every office action throughout the five issued patents to the specification of the instant application. Hinzmann is a cigarette making machine which admittedly does have some form of curling mechanism to create tubes for the cigarette but addresses entirely different solutions than those required in the curling of continuous strands of curling ribbon.

Hinzmann does not solve the problem of curling gift ribbon for decorative purposes but rather is directed to created symmetrical rod-shaped web filters for cigarettes. It is, in effect, a tube making apparatus towards the purpose of manufacturing cigarettes.

Hinzmann teaches away from the instant application in that imitation cork or stiff paper is used in the

curling mechanism. Stiff paper presents different problems to be solved than that of highly pliant continuous strands of polypropylene curling ribbon (continuous at least as more than the inch length web of the Hinzmann patent which is additionally curled and cut into an independent tube). The web in Hinzmann, once curled, is instantly turned into a separate entity- a tube- which is further processed into a cigarette. In effect, shortly after leaving the curling mechanism in Hinzmann, it ceases to be a curled web in the sense of the instant application and is transformed into a rod-shaped portion of a smoker's product. It is not ribbon and in fact it teaches away from using a web that is not (relatively) stiff. Even in this function, the prime purpose of Hinzmann is to provide a novel apparatus for reducing or eliminating localized stresses in the web, in other words, to make sure that the tube created by the curling has exact same diameter throughout its length (i.e. it is a symmetrical rod and not cone shaped with a different size openings on either end).

Focke teaches a packaging system for wrapping packages. There is no curling mechanism and therefore Focke does not address the handling of a *curled* web.

In order to be used towards a prior art rejection under U.S.C. 103(a) it must, in combination with other prior art patent(s), be an *obvious* combination to one of ordinary skill in the art to solve the problem addressed by the Applicant. However, Focke specifically *teaches away from* a drive system which allows for the exiting of the curled web from the machine (and thus insure continuous operation), as in the instant application. Focke in fact teaches a drive system including non-opposing parallel conveyor which conversely is designed to *hold* the web securely to it, the anti-thesis of the Goldstein drive means which is designed to firstly pull the ribbon over the curling means and allow for *release* of the web from the machine without any adverse effect on its operation.

Focke requires that the conveyor belts hold securely the (uncurled) web in order that it stay attached to the belts so that the package can be pushed into the severed web (packaging blank). At polar opposite reasoning, the conveyor belts in the instant application allow for handling of the curled web so that there is less likelihood that the curled ribbon adhere to the belts and thus can circle back to a juncture which would cause jamming of the drive means.

Focke teaches a set of parallel conveyor belts 20, 21 which "are provided with a row of suction holes 24 in the zone of contact with the web 11". This adhesion is accomplished by applying suction. Focke then teaches away from a drive means which inherently assists in non-adhesion of the web in order to avoid adverse operation. Focke specifically requires adhesion to the belts and is designed to do just that. Goldstein requires non-adhesion to the belts because Goldstein solves an entirely different problem than Focke. When a patent teaches away from the problem to be solved, it weighs heavily and often irrefutably against a motivation to look to or combine. Because when a patent teaches away from the problem to be solved by the instant invention, a man of ordinary skill in the art would not consider it obvious and indeed would be dissuaded from looking to and/or combining it when confronted with the same problem as the Applicant.

**2. The Structures are different**

Focke teaches a set of opposing rollers which however are independent of the conveyor belt. In the instant application, the roller(s) is in contact with or "being deposited between" the conveyor belt.

Focke merely has a set of parallel, not opposing, conveyor belts to provide a means for the enveloping of the package which is thrust into the web. Thus, Focke does not have a drive means as found in the Markush group since the rollers in Focke are not deposited between other means in the Markush group and are located and driven independently. In the instant application, drive means such as the conveyor belts are opposing, not parallel.

**3. The Fields of Search are different**

The two cited prior art patents Hinzmann and Focke have different Fields of Search and indeed are both different than those of the instant application (as seen in the parent patent 5,518, 493). There

is not a single commonality between them. Thus the man of ordinary skill in the art, confronted with the problem of curling ribbon on a mass production level, would hardly look to two entirely different fields of search (and indeed U.S. Cl. and Int. Cl.) and combine to solve a problem in yet a third field of search. Without any specific motivation, it is not only not obvious for the skilled man in the art but even highly unlikely that he would combine these two references from different fields as it is highly improbable he would ever look in these divergent fields. This alone creates a prima facie case for overcoming an obvious rejection based upon combination of two references (of two different fields and classes) which are additionally outside the field of search of the instant application.

#### 4. General Patent Law Discussion

Most if not all inventions arise from a combination of old elements. See *In RE Werner Kotzab*

Fed.Cir. 2000) citing *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998) (Thus, every element of a claimed invention may often be found in the prior art. *See id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *See In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998));

The obviousness analysis is based on four underlying factual inquiries, the well-know Graham factors: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness. *Michael L. McGinley v Franklin Sports, Inc* (Fed.Cir 2001) (citing *Graham v John Deere Co.* 383 U.S. 1 17-18 (1966); *Kegel Co, Inc v AMF Bowling Inc*, 127 F.3d 1420, 1430 USPQ2d 1123, 1130 (Fed.Cir. 1997)).

The central question as to obviousness was described in McGinley as "whether there is reason to combine the [references]. As discussed in this case, the Federal Court shed light on this issue. "The genius of invention is often a combination of known elements which in hindsight seems preordained.

To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine cited references. *Gambo Lundia AB v Baxter Healthcare Corp.* 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed.Cir. 1997). When the art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously. See *In re Dembiczak*, 175 F3d 8994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir. 1999).

"We have further indicated 'that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references'." See *In re Dembiczak* at 999, 50 USPQ2d at 1617. That suggestion may come from, *inter alia*, the teachings of the references themselves and, in some cases, from the nature of the problem to be solved. See *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); *Rouffet*, 149 F.3d at 1355, 47 USPQ2d at 1456.

"We have noted elsewhere, as a useful general rule, that references that teach away cannot serve to create a prima facie case of obviousness". *In re Spinnable*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969) (references teach away from combination if combination produces seemingly inoperative device); see also *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125 (Fed.Cir. 1984)(inoperable modification teaches away).

The Federal Circuit Court "looked at the invention as whole and explicitly refused to "us[e] the patent or invention at issue as a guide to combine bits and pieces of earlier designs and then reach a conclusion of obviousness." *General American v Cryo-Trans* (Fed.Cir. 1996) (The court concluded that "[t]here is no clear suggestion of combining different pieces of prior art to produce the invention

claimed by the '876 Patent unless the patent is improperly used as a guide to make the combination." Again, I find no error in the district court's analysis of the prior art or in its finding that there was no motivation to combine the cited references. It was mindful that "[c]are must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'" *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988) (citing *Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, 1012, 217 USPQ 193, 199 (Fed.Cir.1983)).

To prevent the use of hindsight based on the invention to defeat patentability of the invention, an examiner must show a motivation to combine the references that create the case of obviousness. In other words, an examiner must show a reason why a skilled person, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. The requirement that an examiner must show a "suggestion to combine" is a safeguard against the use of hindsight combinations to prevent patentability<sup>1</sup>. When relying on numerous references or modification of prior art, it is incumbent upon the examiner to identify some suggestion to combine references or make the modification. *In re Jones*, 958 F.2d 347, 351, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992) (stating that there must be some suggestion to combine, "either in the references themselves or in the knowledge generally available to one of ordinary skill in the art"); see *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 292, 227 USPQ 657, 664 (Fed. Cir. 1985).

The solution to be solved is inherent in the end result or product desired. In *Hinzmann*, the patentee sought, inter alia, of forming tubes or cylinders to be filled with tobacco and filters in making cigarettes. In *Focke*, much like a previous cited prior art *Watzka* in an earlier continuation patent,

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<sup>1</sup> Chartove, Federal Circuit Yearbook (PLI 1999)

the patentee sought to create (square) papers to be used for packaging. In the claimed invention, applicant seeks to curl a ribbon strands to create a multi-strand curled ribbon product. Entirely different means are used in the claimed invention to perform an entirely different function to create an entirely different end product as compared to both prior arts. Absent any teaching or commonality between the prior art themselves nor between the prior art and the claimed invention, it is simply gross hindsight to suggest that in these different fields of art, such combination would even be considered, much less obvious, and would thus result in the claimed invention. The Examiner must show a "suggestion to combine" in order to circumvent a conclusion of improper means- the use of hindsight combinations- to prevent patentability.

Applicant respectfully states that both the combination would not result in the claimed invention nor would such combination be realized by one of ordinary skill in the art simply because he would not look to these separate fields to solve the problem of handling a multi-strand curled ribbon product. In discussing *re Rouffet* F.3d 1350, 47 U.S.P.Q.2<sup>nd</sup> 1453 (*Fed. Cir 1998*) the Federal Circuit stated that invention may be characterized as the process of combining prior art in a nonobvious manner.

The PTO *must* explain the reasons why a skilled person would have been motivated to select the references and to combine them to render the claimed invention obvious. According to the Federal Circuit, the requirement that there must be a suggestion to combine the references is a critical safeguard against the hindsight analysis and rote application of the legal test for obviousness.

The Federal Circuit observed that virtually all inventions are combinations of old elements. Consequently, it is often the case that every element of an invention may be found in the prior art. If patentability could be refused merely by demonstrating that each element of an invention is found

in prior art, then very few patents would be granted. Furthermore, if patents could be rejected by merely identifying each claim element that is found in the prior art, then examiners would use the claimed invention itself as a guide for piecing together elements in the prior art to defeat the patentability of the claimed invention. The Federal Circuit noted that such an approach to determining patentability would be illogical and inappropriate.<sup>2</sup>

"To prevent the use of hindsight based on the invention to defeat patentability of the invention, an examiner must show a motivation to combine the references that create the case of obviousness. The CAFC observed that virtually all inventions are combinations of old elements. Consequently, it is often the case that every element of an invention is found in the prior art. If patentability could be refused merely by demonstrating that each and every element of an invention is found in the prior art, then very few patents would be granted."<sup>3</sup>

Applicant respectfully suggests that the Examiner's hand has been found in this particular cookie jar. Moreover, the elements cited are inappropriate in two further ways. Firstly, the fields of art of the two prior art patents cited are entirely different and non-related, such that the skilled man in the art, looking for solutions to the particular problem addressed by the claimed invention, would not be motivated to search in this particular combination of non-related fields of art.

Secondly, the elements cited, such as the *parallel* Focke conveyor belts, are entirely different from those in the claimed invention, and perform an entirely different, indeed opposite, function. Even if discovered, the net result is illogically combined elements which would fail to neither function for the purpose of the claimed invention nor even function in any manner whatsoever.

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<sup>2</sup> *ibid*

<sup>3</sup> *ibid*



The solution to be solved is inherent in the end result or product desired. In Hinzmann, the patentee sought, inter alia, of forming tubes or cylinders to be filled with tobacco filters in making cigarettes. In Focke, the patentee sought to handle an uncurled web to create packaging blanks to be applied to wrapping packages. In the claimed invention, applicant seeks to curl ribbon strands to create a mass production of a curled ribbon product. Entirely different means are used in the claimed invention to perform an entirely different function to create an entirely different end product as compared to both prior arts. Absent any teaching or commonality between the prior art themselves nor between the prior art and the claimed invention, it is simply gross hindsight to suggest that in these different fields of art, such combination would even be considered, much less obvious, and would thus result in the claimed invention. The Examiner must show a "suggestion to combine" in order to circumvent the use of hindsight combinations to prevent patentability.

The Examiner's interpretation of the problem and solution of handling ribbon strands is inapposite.

In Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH, 193 F.3d 877, 45 U.S.P.Q. 2d 1977 (Fed. Cir. 1998) the Federal Circuit stated that the trial court's definition of the inventor's problem improperly presumed the solution to the problem, which here in the claimed invention the Examiner is merely adding a prior art conveyor belt which is a means to hold the web to the drive means, while Applicant states the presence of conveyor belts are a means to handle (i.e. allow for exiting of the web from the drive means) a multiple of ribbon strands towards a definitive goal of the creation of a specific product- a pre-curved ribbon product. According to the Federal Circuit, inappropriately defining the inventor's problems in terms of its solutions led the trial court to adopt a view of the scope of the prior art that was too narrow. It also caused the trial court to inappropriately use

hindsight in the selection of the prior art relevant to obviousness.

The Federal Circuit has long maintained that absent any teaching, motivation or suggestion to combine two prior art references, an obviousness rejection is untenable. The Federal Circuit has additionally made clear that combining references from non-analogous fields is improper (see *Wang Laboratories, Inc. v Toshiba Corp.* 993 F.2d 858, 865, 26 USPQ2d 1767 [Fed.Cir. 1993] “the Allen-Bradley patent and X9 SIMM, not being analogous prior art, thus could not have rendered the claimed subject matter obvious.”) It is clear that a skilled man in the art would not look to a cigarette making machine and a wrapping machine and absent any teaching to combine would not combine isolated elements within those patents and thus render applicant’s instant claims obvious. The mere fact that both patents can be argued to deal with a web material does not render both patents as analogous art and clearly in view of the nature of the problem confronting the respective inventors, and the solutions, it is further obvious that these two patents are within fields that “are, at best, distant cousins. In other words, the records contain substantial evidence that Molitor is not analogous art relevant to the problems of [the patented invention]...” (see *Litton Systems, Inc. v. Honeywell, Inc* 87 F.3d 1559, 1568, 39 USPQ2d 1321 [Fed.Cir. 1996).


In *Orthopedic Equipment Co. v United States*, 702 F.2d 1005, 1009, 217 USPQ 193 (Fed.Cir. 1983), “In determining the relevant art of the claims in suit one looks to the nature of the problems confronting the inventor.” The Hinzmann and Focke patents both deal with a web material *wrapping around and enclosing* outside foreign material, such as cigarettes and packages respectively. This is not remotely the problem facing the instant invention which deals with the mass production of curled ribbon where the web material itself is the end product. Focke’s use of a parallel twin conveyor belts system specifically to allow for the web to adhere to the belts which is

exactly what the instant application seeks to avoid. A skill man in the art would not seek to use, much less combine, Focke's belts which are designed to have the web adhere to the belts rather than to disengage from the belts in order that the curled ribbon in the instant application exist the machine.

The skilled man in the art would not seek to use these belts together with a cigarette making machine. The problem confronting the Applicant was the curling and handling of lengthy and unwieldy curled ribbon strands, not a rod-shaped tube for cigarettes nor a flat (uncurled) web for enveloping a package.

In view of the foregoing it is believed that this application is in condition for allowance and the allowance thereof is respectfully requested.

Respectively submitted,  
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